

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Lynchburg Satellite Office

STATEMENT OF LEGAL AND FACTUAL BASIS
FOR PROPOSED PERMITTING ACTION
UNDER 9 VAC 5 CHAPTER 80 ARTICLE 1 (TITLE V - CLEAN AIR ACT)

APPLICANT:

VA-30286 AIRS ID 510890065
Bassett Furniture Industries, Bassett Fiberboard
P.O. Box 626
Bassett, VA 24055

FACILITY LOCATION:

53 Trenthill Drive, Henry County

FACILITY DESCRIPTION:

Bassett Furniture Industries, Bassett Fiberboard is a manufacturer of fiberboard covered by Standard Industrial Classification (SIC) Code 2493.

Compliance History:

The facility was last inspected on November 8, 1999 and was found to be in compliance with the existing permit and applicable regulations. The plant submitted an annual emission update for calendar year 1998, received February 26, 1999. The facility has made appropriate payment for billed emissions to date.

EMISSIONS SUMMARY:

PLANTWIDE EMISSIONS SUMMARY [TONS PER YEAR]		
CRITERIA POLLUTANTS	POTENTIAL EMISSIONS	1998 ACTUAL EMISSIONS
Particulate Matter (PM ₁₀)	787	3.74
Nitrogen Oxides (NO _x)	30	5.73
Sulfur Dioxide (SO ₂)	58	0.57
Volatile Organic Compounds (VOC)	36	20.7

TITLE V PROGRAM APPLICABILITY BASIS:

This facility has the potential to emit 787 tons per year of PM and 26 tons per year of HAPs. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, Bassett Fiberboard is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 9 VAC 5 Chapter 80 Article 1. The facility is also Title V major for HAPs.

Applicable Regulations/Existing Permits

Bassett Fiberboard is an existing source. No initial construction/operation permit was issued for this facility and there is one state permit for this plant dated May 2, 1977 (and amended October 8, 1999), to modify and operate a wood/oil-fired boiler. Other equipment and boilers at the facility are regulated under Existing Stationary Sources (Chapter 40, Part I and Articles 1 and 4), Fuel Burning Regulations (Chapter 40 Article 8) and New and Modified Stationary Sources (Chapter 50).

This facility has no 112(r) chemicals on site above threshold levels, therefore no RMP has been prepared.

This facility has one oil storage tank for which NSPS Subpart Kb (Section 60.116b, Monitoring Operations) applies.

MACT Requirements

This facility has no applicable MACT standard at this time.

Periodic Monitoring

Emission limits for Particulate Matter (PM) and SO₂ for the boilers are based on maximum design throughput for the equipment. Compliance with these limits in the permit can be demonstrated through calculations.

The Cleaver Brooks boiler (BL1) is limited to burning No. 2 fuel oil and would not have the potential to exceed either the PM or SO₂ permit limit. The allowable SO₂ emission limit for this boiler is based on a fuel sulfur content of 2.5%. Since this boiler is limited to burning #2 fuel oil only, further demonstration of compliance with this limit is not warranted since by ASTM definition #2 fuel oil cannot contain more than 0.5% sulfur. The permittee will maintain records of the sulfur content for each shipment of fuel oil to be burned in this boiler. The calculations demonstrate that this boiler does not exceed the allowable emission limitation and no further periodic monitoring should be required.

The Roemac burner/Keeler boiler (BL2) is limited to 23.84 lb/hr of PM. Assuming only 20% control efficiency for the cyclone and 70% for the wet scrubber, BL2 will emit a maximum of 8.2 lb/hr of PM. A condition specifying the PM emission control equipment for this burner/boiler combination is included in the permit. The permittee will maintain records of the wood fuel consumed by the burner annually as a sum of each consecutive 12-month period. This burner does not have the ability to burn coal or any other sulfur-containing fuels, therefore no further demonstration of compliance with the SO₂ emission limit is warranted.

The PM emission limit for the wood fiber dryer (DR1) has been based on the maximum attainable throughput of wood fiber through the dryer. There are no inherently small particles in this process stream. Assuming a minimal control efficiency for each of the three separate pieces

of control equipment (high efficiency collector, Ducon collector and wet scrubber) in series, the combined efficiencies of 95%, 95% and 90% respectively are more than sufficient to demonstrate compliance with the emission limit in the permit. The only atmospheric emission point for the dryer is from the wet scrubber.

The PM emission limit for the press line (PL1) has been based on the maximum attainable throughput of material through the press line. Again, there are no inherently small particles in this process line. Assuming a minimal control efficiency of 95% for this design of collectors, compliance with the emission limit in the permit can be demonstrated.

All woodworking operations at the facility are controlled by fabric filters. Fabric filters are by design able to meet the PM limitation of 0.01 gr/scf in the permit.

A summary of emission limits and calculated maximum emissions is shown below:

Unit ID	Permit Emis. Lim.		Calc. Max. Emis.		PM Control Equipt.
	PM	SO ₂	PM	SO ₂	
BL1	0.39 lb/hr	66.3 lb/hr	0.36 lb/hr	13.06 lb/hr	none
BL2	23.84 lb/hr	92.4 lb/hr	8.2 lb/hr	negl.	cyclone collector wet scrubber
DR1	15.1 lb/hr	N/A	3.5 lb/hr	N/A	cyclone collector Ducon multiclone wet scrubber
PL1	15.1 lb/hr	N/A	10.5 lb/hr	N/A	(3) Aerodyne dynamic separators
WW	0.01 gr/scf each	N/A	0.005 gr/scf each	N/A	(10) fabric filters

Weekly visual observations will be required on the following:

- C Roemac wood burner (BL2),
- C Cleaver Brooks boiler (BL1),
- C Dryer (DR1) wet scrubber exhaust,
- C Press line Aerodyne collector stacks (3), and
- C WW1-10 fabric filter exhausts.

If visible emissions are observed the permittee will have the option to take timely corrective action to resume operations without visible emissions or perform a VEE in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions are in accordance with permit limitations. The permittee will keep a log of observations, any VEE recordings and any corrective actions.

The permittee will also calculate annual emissions for billing purposes each calendar year.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the Commonwealth of Virginia Federal Operating Permit Regulations for the purposes of Title V of the Federal Clean Air Act (9 VAC 5 Chapter 80 Article 1), and underlying applicable requirements in other state and federal rules. Applicable requirement means all of the following as they apply to emission units in a Title V source:

- a. Any standard or other requirement provided for in the State Implementation Plan or the Federal Implementation Plan, including any source-specific provisions such as consent agreements or orders.
- b. Any term or condition of any preconstruction permit issued pursuant to 9 VAC 5-80-10, 9 VAC 5-80-1700 et seq. or 9 VAC 5-80-30 or of any operating permit issued pursuant to 9 VAC 5 Chapter 80 Article 5, except for terms or conditions derived from applicable state requirements or from any requirement of these regulations not included in the definition of applicable requirement.
- c. Any standard or other requirement prescribed under these regulations, particularly the provisions of 9 VAC 5 Chapter 40 (9 VAC 5-40-10 et seq.), 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.) or 9 VAC 5 Chapter 60 (9 VAC 5-60-10 et seq.), adopted pursuant to requirements of the federal Clean Air Act or under § 111, 112 or 129 of the federal Clean Air Act.
- d. Any requirement concerning accident prevention under § 112(r)(7) of the federal Clean Air Act.
- e. Any compliance monitoring requirements established pursuant to either § 504(b) or § 114(a)(3) of the federal Clean Air Act or these regulations.
- f. Any standard or other requirement for consumer and commercial products under § 183(e) of the federal Clean Air Act.
- g. Any standard or other requirement for tank vessels under § 183(f) of the federal Clean Air Act.
- h. Any standard or other requirement in 40 CFR Part 55 to control air pollution from outer continental shelf sources.
- i. Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the federal Clean Air Act, unless the administrator has determined that such requirements need not be contained in a permit issued under this article.

- j. With regard to temporary sources subject to 9 VAC 5-80-130, (i) any ambient air quality standard, except applicable state requirements, and (ii) requirements regarding increments or visibility as provided in Article 8 (9 VAC 5-80-1700 et seq.) of this part.
- k. Any standard or other requirement of the acid deposition control program under Title IV of the Clean Air Act or the regulations promulgated thereunder.
- l. Any standard or other requirement governing solid waste incineration under §129 of the Clean Air Act.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 9 VAC 5 Chapter 80 Article 1 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the state but is not federally-enforceable is identified in the draft Title V permit as such.

REQUEST FOR VARIANCES OR ALTERNATIVES:

None

COMMENT PERIOD:

The public notice appeared in the Martinsville Bulletin on March 12, 2000.

Beginning Date: March 12, 2000

Ending Date: April 17, 2000

Written comments were received from EPA Region III and were addressed in a letter dated July 9, 2001 before issuing the permit on August 27, 2001.

PUBLIC HEARING:

No public hearing was requested.